under a lens, however, showed that the shells were made of small grains of sand cemented together, and that the contained animals were arthropods. The shells were firmly attached to the rocks and occurred together with the snail *Cleopatra ferruginea* Lea, which is the only species the writer has been able to find in the streams of the Amani district. A figure is given of one of the largest specimens. Material has been retained by the British Museum (Natural History), and the rest will be deposited in the Coryndon Museum.

N.B.—Since writing the above a reference has been found to the occurrence of a species of *Helicopsyche* in the River Qué, West Lendu. E.v.Martens (1898, Deustch-Ost-Afrika, Band IV, abt. 1 "Beschalte Weichthiere", page 173) mentions Stuhlmann finding them there on the 22nd of September, 1891, and that the cases were 4 mm. broad and 2 mm. high.

West Lendu presumably refers to the Belgian Congo just West of Albert Nyanza.

## *FOUR NEW KENYA MOTHS.*

By A. L. H. Townsend.

1. HEMITHEINAE.

*PRASINOCYMA NEREIS. sp. nov.*

♂ Frons, in a living specimen, bright crimson, with wide white lower edge. (This crimson colour becomes quickly dulled after death). Some white scales between bases of antennae. Palpi above slightly browner red than frons, white below. Forelegs brownish red in front, the hairs on tibial process yellowish. Second pair of legs paler: third pair white, with a short white hair-brush. Shaft of antennae whitish above, extreme tip pinkish, pectinations yellowish buff. Thorax and abdomen above concolorous with wings, white below.

Wings pale, slightly bluish green; very thinly scaled. Costa of forewing narrowly edged with yellowish-buff. All wings closely strigulated with silvery-white; strigulae larger and more definite between anal vein and inner margin of forewing, but forming no definite marginal spot. A small and inconspicuous cell-spot of green scales in the forewing, and a similar spot — not always present — in hindwing. Inner half of cilia concolorous with wings; tips silvery-white.

Underside silvery-white; a slightly greener tinge along costa of forewing, below the buff edging.

♀ Similar.

Length of forewing, both sexes, from base to apex, from 16 to 18 mm. Holotype ♂ and allotype ♀ in my collection: paratype ♂ in British Museum.

Locality: Nakuru, Kenya. Larva on *Acacia spp.*

2. *PRASINOCYMA ANADYOMENE sp. nov.*

♂ Frons bright, almost emerald green; a narrow white line at vertex. Palpi cinnamon red above, white below. Forelegs deep cinnamon red in front; second and third pairs paler. Hind tibia with a long brush of white hairs. Base and shaft of antennae pure white for basal half, then pinkish. Pectinations bright maize-yellow.

Wings rather glaucous green, thinly scaled, with a heavy dusting of brighter green around margins, especially between costa and subcosta of forewing. Costa of forewing very narrowly edged with maize-yellow. Rather sparse silvery-white strigulations all over, and a definite silvery-white spot just beyond the middle of inner margin of forewing. A small cell-spot on all wings; black with a few greyish scales. Cilia green at base, with silvery-white tips.

Underside very pale greenish-white, except along costa, where rather heavily scaled with green as on upper side.

Thorax and abdomen above the same green as the margins of the wings, with white anal tuft; below, white.

♀ Similar, but larger; edging of costa is paler.

Length of forewing from base to apex: in ♂, 18 to 19 mm.; in ♀, 19 to 21 mm. Holotype ♂ & allotype ♀ in my collection: paratype ♂ in British Museum.

Locality: Nakuru, Kenya. Larva on *Olea chrysophylla.*

3. LARENTIINAE.

*EUPITHECIA PSIADIATA sp. nov.*

Frons, vertex, palpi and bases of antennae whitish, heavily speckled with dark brown. Legs fuscous-brown in front, with white scaling at joints. Abdomen above concolorous with fore-wings; thorax paler. A narrow whitish transverse line on the first abdominal segment; a pale dorsal line along abdomen, with six small dark crests. Terminal segment paler; in ♀ almost white.

Forewing very variable in colour, from the reddish-brown of the type to almost olive green. Fuscous maculae on costa, with whitish patches beyond them, indicate the beginnings of transverse lines. Reniform conspicuous black, very long and narrow. Basal line black, edged with whitish outside, from costa to median only. Antemedial and medial indicated only by costal maculae, and dark spots on medial and anal veins. Post-medial consists of a series of dark spots on veins, with faint whitish scaling beyond them. Subterminal line of whitish spots in upper half of wings, rather remote from apex, then coming closer to margin from R5 to C1, ending in a conspicuous white spot near tornus, between cubital and anal veins. Terminal line straight, continuous, fuscous-brown. Cilia whitish, chequered with dark brown at veins. The inner-marginal fringe consists of long, black, plume-tipped hairs, mixed with paler hairs.

Hindwing greyish, thinly irrorated with dark brown, with a very indistinct border of reddish-brown beyond postmedial. Reniform smaller, less elongated, and less distinct than in forewing. Subterminal line visible as a few whitish spots, the most conspicuous being near anal angle. Postmedial can be faintly traced as dark spots on veins. Between inner margin and plical fold are three patches of dark brown scales, with white patches between them, that nearest to anal angle very conspicuous.

Underside, hair-brown, rather shiny. All reniforms distinct;

costal maculae less so. The transverse lines — except basal — more easily seen than on upperside.

Length of forewing, base to apex: 9 mm.

This species comes very close to *somereni*, Prout; but besides slight differences in markings, it differs in the following points:—

The 7th sternite in the ♀ has a narrow but deep indentation between twin lobes. In *somereni* this indentation is shallow but broad, and the lobes are replaced by two unequal projections. In *psiadiata* the posterior edge of the genital plate is concave; in *somereni* it is convex.

Holotype ♂ and allotype ♀ in my collection: paratypes ♂ and ♀ in the British Museum.

Locality: Nakuru, Kenya. Larva on *Psiadia arabica*.

4. BOARMIINAE.

*PARACOTIS HYRAX sp. nov.*

♂ Frons dark brown, with whitish lower edge. Antennae pectinated for three quarters of their length, shaft and pectinations creamy-white, speckled with dark brown. Thorax above concolorous with wings; abdomen slightly darker, with a pale transverse band behind each segment. Ground colour of wings creamy-white, but much irrorated and strigulated with sepia, fuscous, and hair-brown.

*Forewing*: Antemedial, originating in a fuscous costal mascula, is a narrow fuscous line, faint in upper half, very distinct in lower. Nearly straight from costa to lower median, incurved to just above anal vein, thence very oblique to near base. Preceded by a cloudy brown fascia. Medial very indistinct, fuscous, touching reniform, coming very close to antemedial above anal vein, then turning almost perpendicular to inner margin. Post-medial narrow, fuscous, very conspicuous. Incurved from costa to upper median, then very oblique to above anal vein, then almost perpendicular to inner margin. (These three lines come very close together — actually touching in some specimens — above anal vein about half-way along the wing. From this point the antemedial carries on the same slope as postmedial; so that in a well-marked specimen, such as the type, it looks like a continuation of it). Beyond postmedial to termen, a cloudy area of sepia and hair-brown, containing first an indeterminate fascia, and then a zigzag subterminal line, both of ground colour. A darker oblique shading crosses these from lower median to below apex. Terminal line black, slightly crenulate, strongly defined. All veins beyond postmedial (and median in most cases for its whole length) heavily scaled with black. Reniform long, black, white-centred. Cilia ground colour at base and tips, with a dark line at centre, darker sections at veins.

*Hindwing* similar, but only postmedial and terminal lines distinct. In a few cases the cloudy fascia before antemedial is present. Reniform less elongated than in forewing.

*Underside* creamy-white; costa of forewing irregularly strigulated with fuscous brown. Large subcircular reniforms in all wings. A brown macula below apex surrounds a small area of ground colour. Postmedial indicated by dark spots on veins. Terminal line very distinct.

♀ Similar, but greyer; marking less distinct.

*Genitalia of* ♂. Similar in general build to *sabinei,* Prout; but differing in the following points:—

Gnathos of even width, not broadened towards the end. Costa of valve with only one patch of spines, and that at the middle. Anterior end of costal margin produced to a rounded lobe, not to a narrow point. The two cornuti are made up of spine-clusters, as in *sabinei,* but of only half their length. The loose dorsal belt of spines, connecting the cornuti in *sabinei,* is absent in *hyrax.*

Length of forewing, base to apex: ♂ 21 mm.; ♀ 23 mm.

Holotype ♂ and allotype ♀ in my collection: paratype ♂ in the British Museum.

Locality: Nakuru, Kenya. Larva on *Schinus molle.*

I wish to acknowledge gratefully the help that I have received with regard to these species from Mr. D. S. Fletcher, of the British Museum. The notes on genitalia are taken entirely from information supplied by him.

Paracotis hyrax. Natural size.
Eupithecia psiadiata. Slightly enlarged.

## *OBSERVATIONS ON STOLONIFEROUS GRASSES IN KENYA.*

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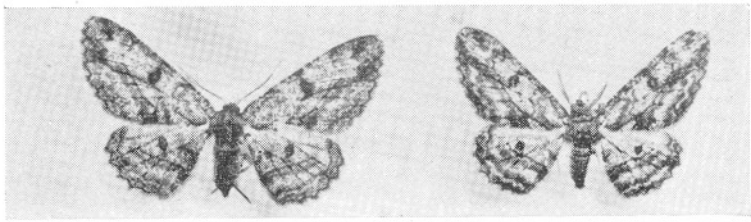
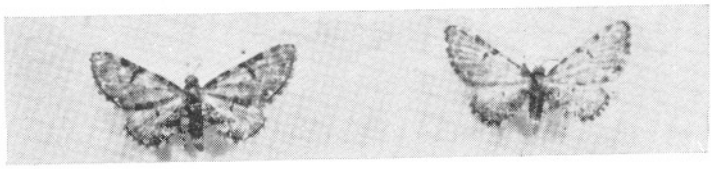
In Europe and probably also in other temperate regions, stoloniferous grasses, i.e. grasses which produce above-ground creeping stems, rooting from nodes, are rare. In Tropical Africa the stoloniferous type of grass is, however, fairly common. In Kenya, out of approximate total of 430 species of grasses, no less than 25 of them produce stolons. The stolons of different species vary considerably in structure, shape and length, rate of growth etc., and it is mainly the structure, i.e. the distribution of leaves on the axis of stolons and phenomena connected with this feature, which are dealt with in the present paper.

The stolons of all local stoloniferous grasses can be classified into two well-defined types, examples of which are those of (a) *Digitaria* aff. *D.milanjana* Stapf (Bogdan 3003) and (b) *Cynodon plectostachyum* Pilger. The stolons of the *Digitaria* have a structure typical of a normal grass stem: the nodes are more or less evenly distributed on the stem, each bearing a single leaf. The leaf bases, or, to be more exact, the bases of the leaf sheaths, arise at some distance one from another and have well



*Paracotis hyrax.* Natural size.



*Eupithecia psiadiata.* Slightly enlarged.